FCC Information and Copyright

This equipment has been tested and found to comply with the limits of a Class B digital device, pursuant to Part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference in a residential installation. This equipment generates, uses, and can radiate radio frequency energy and, if not installed and used in accordance with the instructions, may cause harmful interference to radio communications. There is no guarantee that interference will not occur in a particular installation.

Table of Contents

CHAPTER 1: INTRODUCTION

1.1 BEFORE YOU START

Thank you for choosing our product. Before you start installing the motherboard, please make sure you follow the instructions below:

- Prepare a dry and stable working environment with sufficient lighting.
- Always disconnect the computer from power outlet before operation.
- Before you take the motherboard out from anti-static bag, ground yourself properly by touching any safely grounded appliance, or use grounded wrist strap to remove the static charge.
- Avoid touching the components on motherboard or the rear side of the board unless necessary. Hold the board on the edge, do not try to bend or flex the board.
- Do not leave any unfastened small parts inside the case after installation. Loose parts will cause short circuits which may damage the equipment.
- Keep the computer from dangerous area, such as heat source, humid air and water.

1.2 PACKAGE CHECKLIST

- HDD Cable X 1
- Serial ATA Cable X 1
- Rear I/O Panel for ATX Case X 1
- Installation Guide X 1
- Fully Setup Driver CD X 1 (full version manual files inside)
- FDD Cable X 1 (optional)
- Serial ATA Power Cable X 1 (optional)
- USB 2.0 Cable X1 (optional)
- S/PDIF out Cable X 1 (optional)
- DVI to HDMI Adapter X 1 (optional)

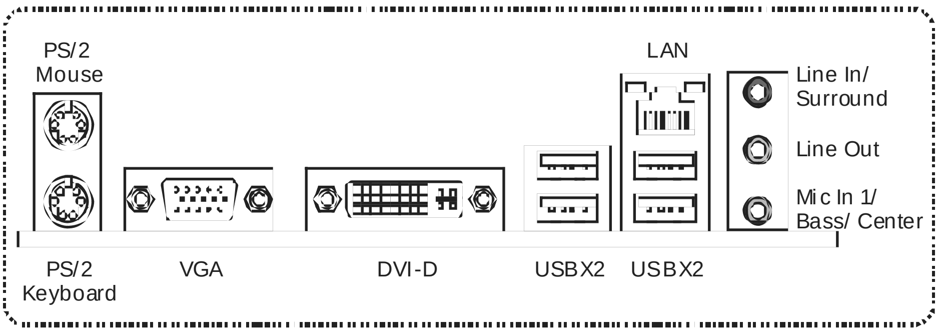
Note: The package contents may differ by area or your motherboard version.

1.3 MOTHERBOARD FEATURES

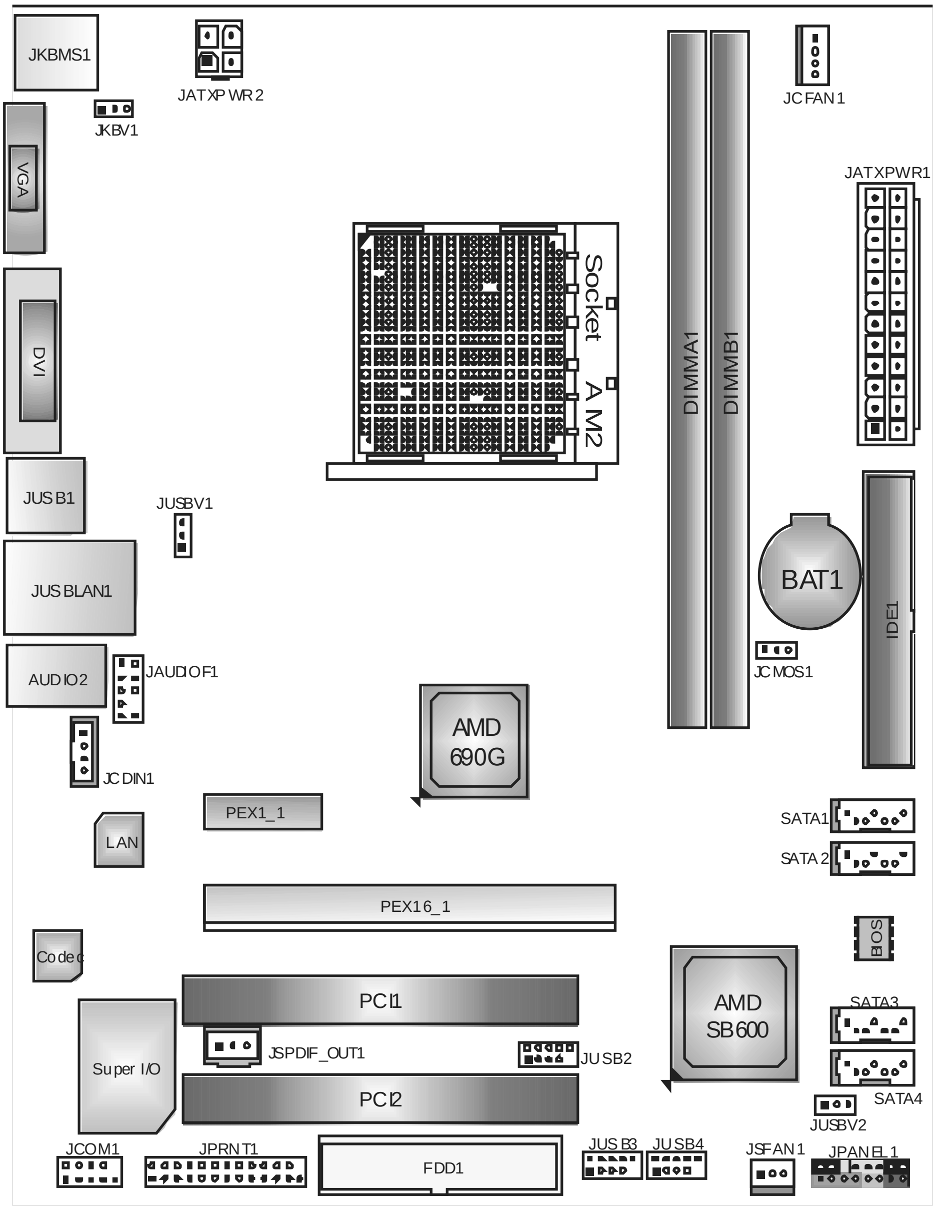
SPEC		
CPU	Socket AM2+ / AM2 AMD Athlon 64 / Athlon 64 FX / Athlon 64 x2 / Sempron processors	AMD 64 Architecture enables 32 and 64 bit computing Supports Hyper Transport and Cool-n-Quiet
FSB	Supports up to 1 GHz Bandwidth	Support HyperTransport
Chipset	AMD 690G AMD SB600	
Super I/O	ITE 8716F Provides the most commonly used legacy Super I/O functionality	Low Pin Count Interface Environment Control initiatives H/W Monitor ITE's "Smart Guardian" function
Main Memory	DDR2 DIMM Slots x 2 Max Memory Capacity 4GB Each DIMM supports 256/512MB/1GB/2GB DDR2	Dual Channel Mode DDR2 memory module Supports DDR2 533 / 667 / 800 Supports DDR2 1066 (by AM2+ CPU) Registered DIMM and ECC DIMM is not supported
Graphics	Integrated in AMD 690G Chipset	Max Shared Video Memory is 512MB
IDE	Integrated IDE Controller	Ultra DMA 33 / 66 / 100 / 133 Bus Master Mode supports PIO Mode 0~4,
SATA II	Integrated Serial ATA Controller	Data transfer rates up to 3 Gb/s SATA Version 2.0 specification compliant
LAN	Realtek RTL 8101E	10 / 100 Mb/s auto negotiation Half / Full duplex capability
Sound	ALC662	5.1 channels audio out High Definition Audio
Slots	PCI Express x16 slot x1 PCI Express x 1 slot x1 PCI slot x2	Supports PCI-E x16 expansion cards Supports PCI-E x1 expansion cards Supports PCI expansion cards
On Board Connector	Floppy connector x1 IDE Connector x1 SATA Connector x4 Front Panel Connector x1 Front Audio Connector x1 CD-in Connector x1	Each connector supports 2 Floppy drives Each connector supports 2 IDE device Each connector supports 1 SATA devices Supports front panel facilities Supports front panel audio function Supports CD audio-in function

SPEC			
	S/PDIF out connector	x1	Supports digital audio out function
	CPU Fan header	x1	CPU Fan power supply (with Smart Fan function)
	System Fan header	x1	System Fan Power supply
	CMOS clear header	x1	Restore CMOS data to factory default
	USB connector	x3	Each connector supports 2 front panel USB ports
	Power Connector (24pin)	x1	Connects to Power supply
	Power Connector (4pin)	x1	Connects to Power supply
	Printer Port Connector	x1	Each connector supports 1 Printer port
	Serial port Connector	x1	Connects to RS-232 Port
Back Panel I/O	PS/2 Keyboard	x1	Connects to PS/2 Keyboard
	PS/2 Mouse	x1	Connects to PS/2 Mouse
	DVI port	x1	Connect to DVI-D monitor
	VGA port	x1	Connect to D-SUB monitor
	LAN port	x1	Connect to RJ-45 ethernet cable
	USB Port	x4	Connect to USB devices
	Audio Jack	x3	Provide Audio-In/Out and microphone connection
Board Size	200 mm(W) x 244 mm(L)		
Special Features	RAID 0 / 1 / 1+0 support		
OS Support	Windows XP / VISTA		Biostar Reserves the right to add or remove support for any OS With or without notice.

1.4 REAR PANEL CONNECTORS



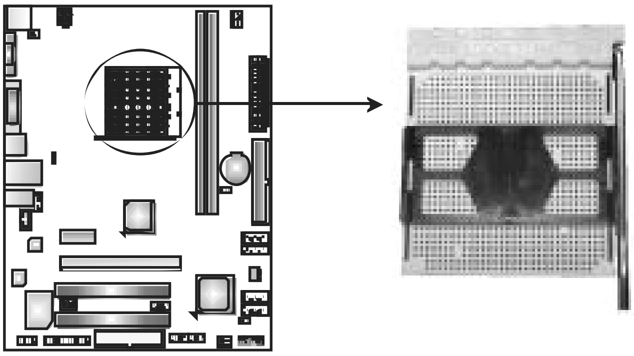
1.5 MOTHERBOARD LAYOUT



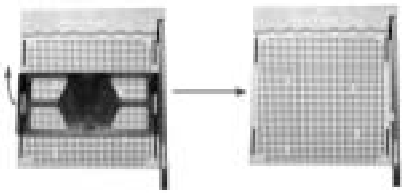
Note: ■ represents the 1st pin.

CHAPTER 2: HARDWARE INSTALLATION

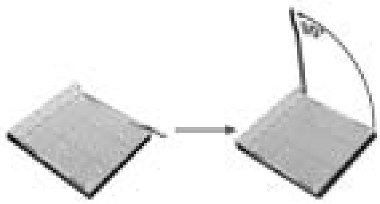
2.1 INSTALLING CENTRAL PROCESSING UNIT (CPU)



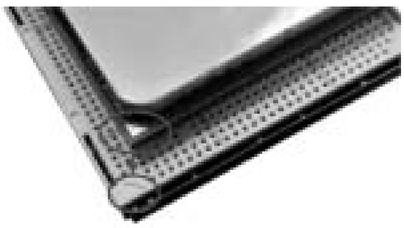
Step 1: Remove the socket protection cap.



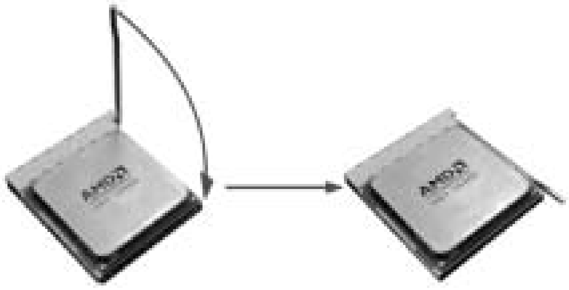
Step 2: Pull the lever toward direction A from the socket and then raise the lever up to a 90-degree angle.



Step 3: Look for the white triangle on socket, and the gold triangle on CPU should point towards this white triangle. The CPU will fit only in the correct orientation.



Step 4: Hold the CPU down firmly, and then close the lever toward direct B to complete the installation.



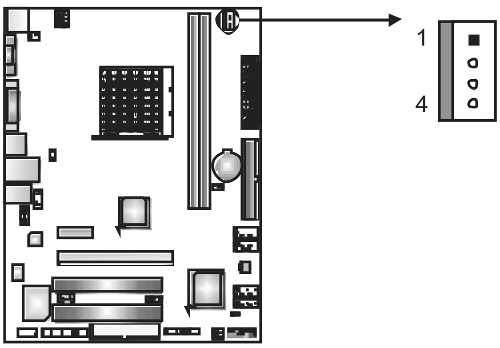
Step 5: Put the CPU Fan on the CPU and buckle it. Connect the CPU FAN power cable to the JCFAN1. This completes the installation.

Note: Please update the BIOS to the latest version while using AM2+ CPUs. Due to the latest CPU transition, you may encounter the situation that the new system failed to boot while using new AM2+ CPUs. In this case, please install one standard AM2 CPU to boot your system, and update the latest BIOS from our website for AM2+ CPUs support.

2.2 FAN HEADERS

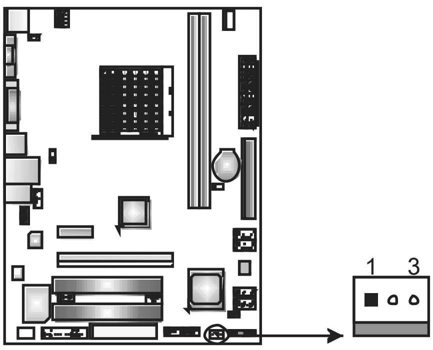
These fan headers support cooling-fans built in the computer. The fan cable and connector may be different according to the fan manufacturer. Connect the fan cable to the connector while matching the black wire to pin#1.

JCFAN1: CPU Fan Header



Pin	Assignment
1	Ground
2	+12V
3	FAN RPM rate sense
4	Smart Fan Control (By Fan)

JSFAN1: System Fan Header



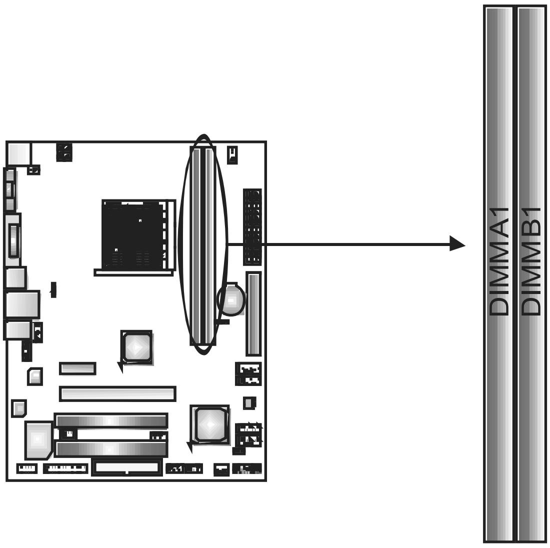
Pin	Assignment
1	Ground
2	+12V
3	FAN RPM rate sense

Note:

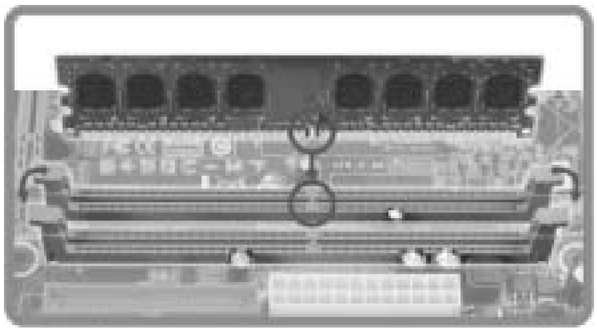
The JCFAN1 supports 4-pin head connector. The JSFAN1 supports 3-pin head connector. When connecting with wires onto connectors, please note that the red wire is the positive and should be connected to pin#2, and the black wire is Ground and should be connected to GND.

2.3 INSTALLING SYSTEM MEMORY

A. Memory Modules



1. Unlock a DIMM slot by pressing the retaining clips outward. Align a DIMM on the slot such that the notch on the DIMM matches the break on the Slot.



2. Insert the DIMM vertically and firmly into the slot until the retaining chip snap back in place and the DIMM is properly seated.



B. Memory Capacity

DIMM Socket Location	DDR2 Module	Total Memory Size
DIMMA1	256MB/512MB/1GB/2GB	Max is 4GB.
DIMMB1	256MB/512MB/1GB/2GB	

C. Dual Channel Memory installation

To trigger the Dual Channel function of the motherboard, the memory module must meet the following requirements:

Install memory module of the same density in pairs, shown in the following table.

Dual Channel Status	DIMMA1	DIMMB1
Enabled	O	O
Disabled	X	O
Disabled	O	X

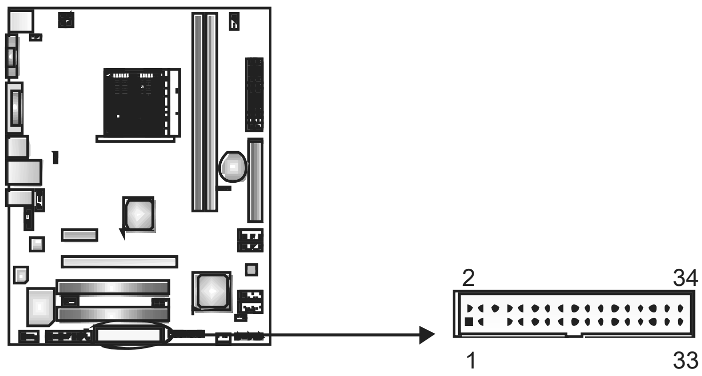
(O means memory installed, X means memory not installed.)

The DRAM bus width of the memory module must be the same (x8 or x16)

2.4 CONNECTORS AND SLOTS

FDD1: Floppy Disk Connector

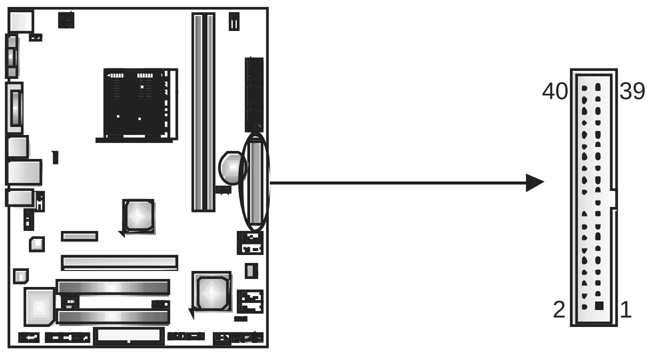
The motherboard provides a standard floppy disk connector that supports 360K, 720K, 1.2M, 1.44M and 2.88M floppy disk types. This connector supports the provided floppy drive ribbon cable.



IDE1: Hard Disk Connector

The motherboard has a 32-bit Enhanced PCI IDE Controller that provides PIO Mode 0~4, Bus Master, and Ultra DMA 33/66/100/133 functionality.

The IDE connectors can connect a master and a slave drive, so you can connect up to two hard disk drives.

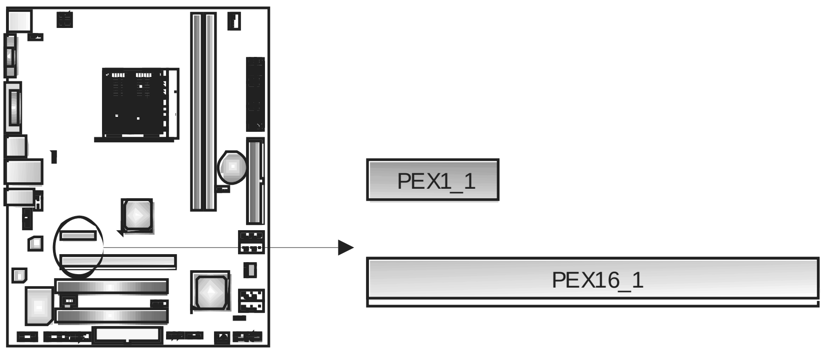


PEX16_1: PCI-Express x16 Slot

- PCI-Express 1.0a compliant.
- Maximum theoretical realized bandwidth of 4GB/s simultaneously per direction, for an aggregate of 8GB/s totally.

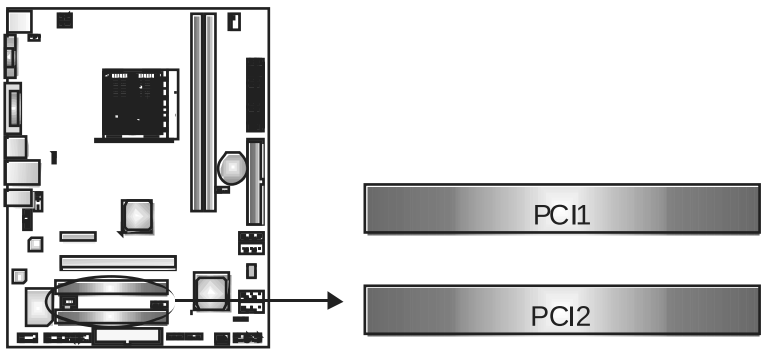
PEX1_1: PCI-Express x1 Slot

- PCI-Express 1.0a compliant.
- Data transfer bandwidth up to 250MB/s per direction; 500MB/s in total.
- PCI-Express supports a raw bit-rate of 2.5Gb/s on the data pins.
- 2X bandwidth over the traditional PCI architecture.



PCI1~PCI2: Peripheral Component Interconnect Slots

This motherboard is equipped with 2 standard PCI slots. PCI stands for Peripheral Component Interconnect, and it is a bus standard for expansion cards. This PCI slot is designated as 32 bits.



CHAPTER 3: HEADERS & JUMPERS SETUP

3.1 HOW TO SETUP JUMPERS

The illustration shows how to set up jumpers. When the jumper cap is placed on pins, the jumper is "close", if not, that means the jumper is "open".



Pin opened



Pin closed

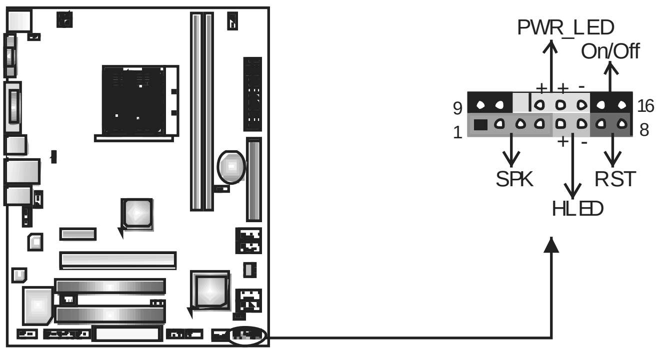


Pin1-2 closed

3.2 DETAIL SETTINGS

JPANEL1: Front Panel Header

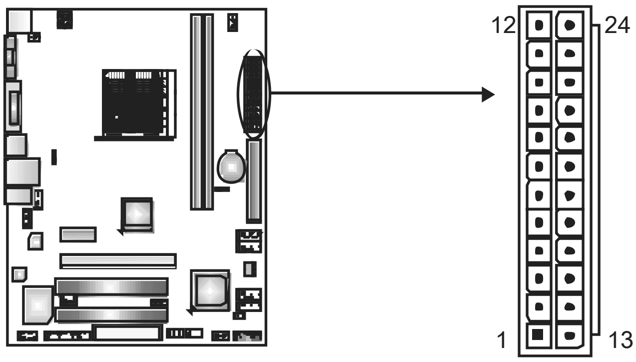
This 16-pin connector includes Power-on, Reset, HDD LED, Power LED, and speaker connection. It allows user to connect the PC case's front panel switch functions.



Pin	Assignment	Function	Pin	Assignment	Function
1	+5V	Speaker Connector	9	N/A	N/A
2	N/A		10	N/A	
3	N/A		11	N/A	N/A
4	Speaker		12	Power LED (+)	Power LED
5	HDD LED (+)	Hard drive LED	13	Power LED (+)	
6	HDD LED (-)		14	Power LED (-)	
7	Ground	Reset button	15	Power button	Power-on button
8	Reset control		16	Ground	

JATXPWR1: ATX Power Source Connector

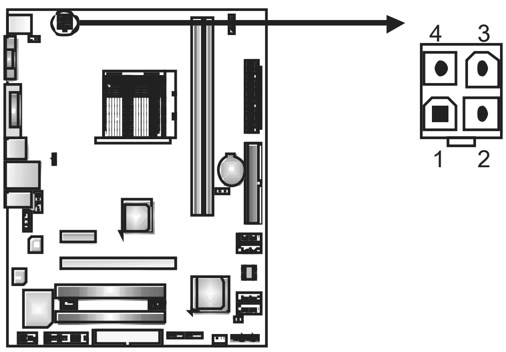
This connector allows user to connect 24-pin power connector on the ATX power supply.



Pin	Assignment	Pin	Assignment
13	+3.3V	1	+3.3V
14	-12V	2	+3.3V
15	Ground	3	Ground
16	PS_ON	4	+5V
17	Ground	5	Ground
18	Ground	6	+5V
19	Ground	7	Ground
20	NC	8	PW_OK
21	+5V	9	StandbyVoltage+5V
22	+5V	10	+12V
23	+5V	11	+12V
24	Ground	12	+3.3V

JATXPWR2: ATX Power Source Connector

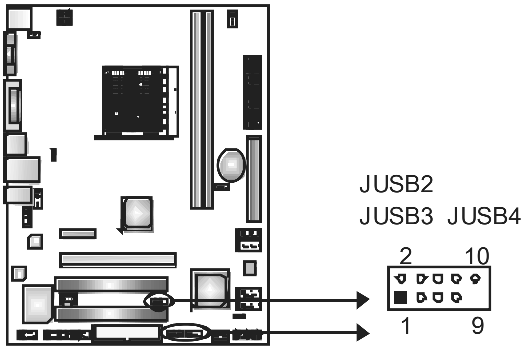
By connecting this connector, it will provide +12V to CPU power circuit.



Pin	Assignment
1	+12V
2	+12V
3	Ground
4	Ground

JUSB2/JUSB3/JUSB4: Headers for USB 2.0 Ports at Front Panel

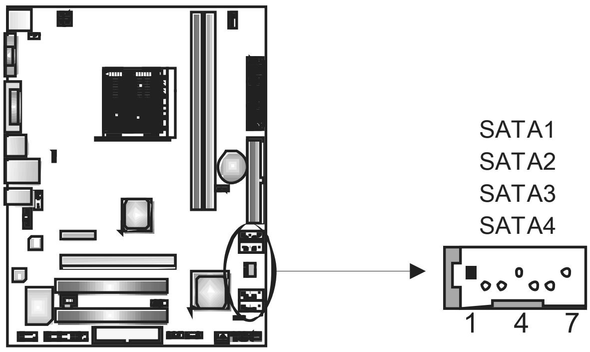
This header allows user to connect additional USB cable on the PC front panel, and also can be connected with internal USB devices, like USB card reader.



Pin	Assignment
1	+5V (fused)
2	+5V (fused)
3	USB-
4	USB-
5	USB+
6	USB+
7	Ground
8	Ground
9	NC
10	Key

SATA1~SATA4: Serial ATA Connectors

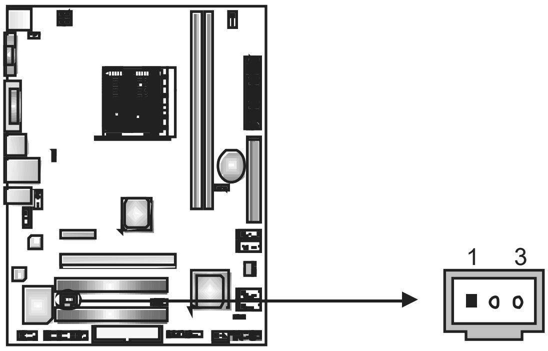
The motherboard has a PCI to SATA Controller with 4 channels SATA interface.



Pin	Assignment
1	Ground
2	TX+
3	TX-
4	Ground
5	RX-
6	RX+
7	Ground

JSPDIF_OUT1: Digital Audio-out Connector

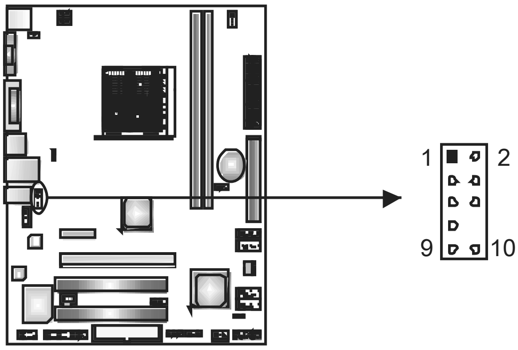
This connector allows user to connect the PCI bracket SPDIF output header.



Pin	Assignment
1	+5V
2	SPDIF_OUT
3	Ground

JAUDIOF1: Front Panel Audio Header

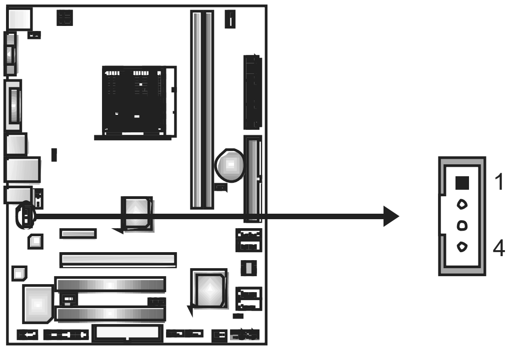
This header allows user to connect the front audio output cable with the PC front panel. This header allows only HD audio front panel connector; AC'97 connector is not acceptable.



Pin	Assignment
1	Mic Left in
2	Ground
3	Mic Right in
4	GPIO
5	Right line in
6	Jack Sense
7	Front Sense
8	Key
9	Left line in
10	Jack Sense

JCDIN1: CD-ROM Audio-in Connector

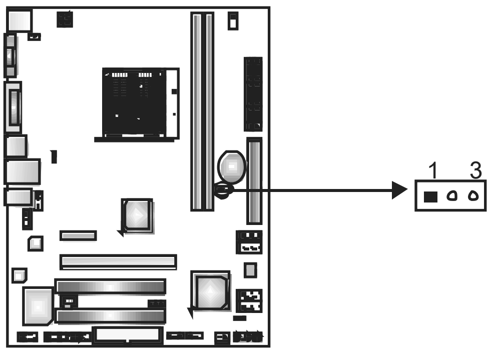
This connector allows user to connect the audio source from the variaty devices, like CD-ROM, DVD-ROM, PCI sound card, PCI TV turner card etc.

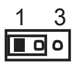


Pin	Assignment
1	Left Channel Input
2	Ground
3	Ground
4	Right Channel Input

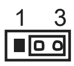
JCMOS1: Clear CMOS Header

By placing the jumper on pin2-3, it allows user to restore the BIOS safe setting and the CMOS data, please carefully follow the procedures to avoid damaging the motherboard.





Pin 1-2 Close:
Normal Operation (default).



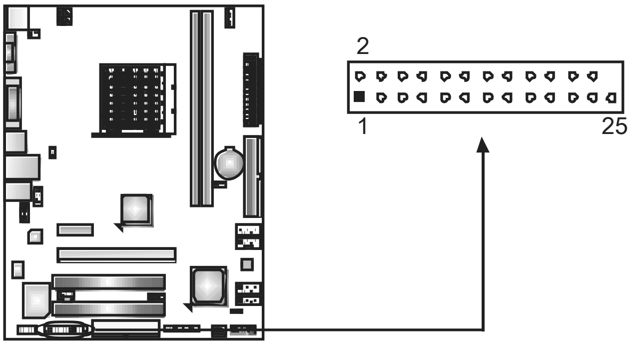
Pin 2-3 Close:
Clear CMOS data.

※ Clear CMOS Procedures:

1. Remove AC power line.
2. Set the jumper to “Pin 2-3 close”.
3. Wait for five seconds.
4. Set the jumper to “Pin 1-2 close”.
5. Power on the AC.
6. Reset your desired password or clear the CMOS data.

JPRNT1: Printer Port Connector

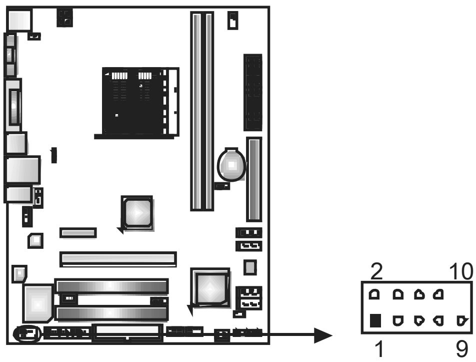
This header allows you to connector printer on the PC.



Pin	Assignment	Pin	Assignment
1	-Strobe	14	Ground
2	-ALF	15	Data 6
3	Data 0	16	Ground
4	-Error	17	Data 7
5	Data 1	18	Ground
6	-Init	19	-ACK
7	Data 2	20	Ground
8	-Scltin	21	Busy
9	Data 3	22	Ground
10	Ground	23	PE
11	Data 4	24	Ground
12	Ground	25	SCLT
13	Data 5	26	Key

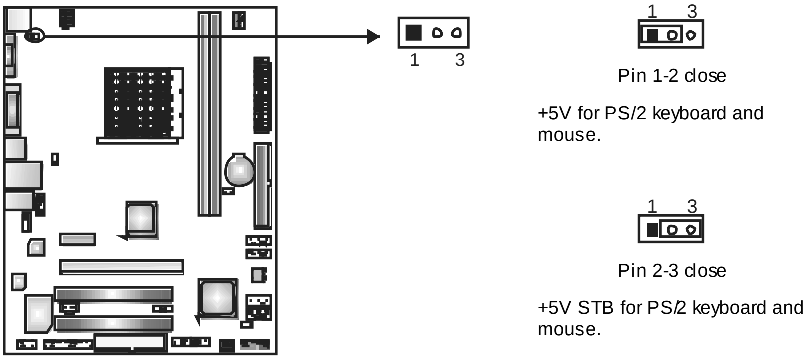
JCOM1: Serial port Connector

The motherboard has a Serial Port Connector for connecting RS-232 Port.



Pin	Assignment
1	Carrier detect
2	Received data
3	Transmitted data
4	Data terminal ready
5	Signal ground
6	Data set ready
7	Request to send
8	Clear to send
9	Ring indicator
10	NC

JKBV1: Power Source Header for PS/2 Keyboard and Mouse



JUSBV1/JUSBV2: Power Source Headers for USB Ports

Pin 1-2 Close:

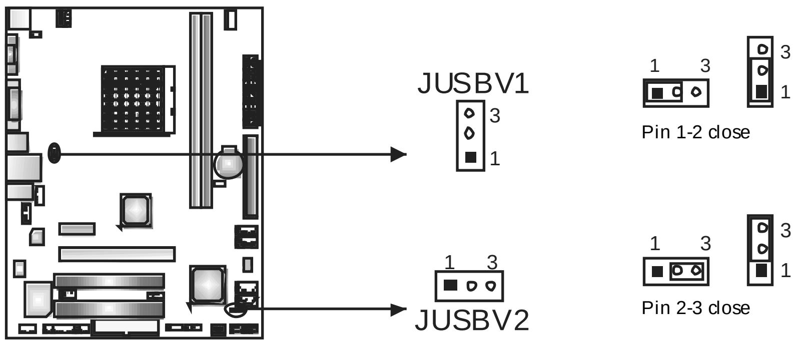
JUSBV1: +5V for USB ports at JUSB1/JUSBLAN1.

JUSBV2: +5V for USB ports at front panel (JUSB2/JUSB3/JUSB4).

Pin 2-3 Close:

JUSBV1: +5V STB for USB ports at JUSB1/JUSBLAN1.

JUSBV2: +5V STB for USB ports at front panel (JUSB2/JUSB3/JUSB4).



CHAPTER 4: RAID FUNCTIONS

4.1 OPERATION SYSTEM

- Supports Windows XP Home/Professional Edition, and Windows Vista.

4.2 RAID ARRAYS

RAID supports the following types of RAID arrays:

RAID 0: RAID 0 defines a disk striping scheme that improves disk read and write times for many applications.

RAID 1: RAID 1 defines techniques for mirroring data.

RAID 1+0: RAID 1+0 combines the techniques used in RAID 0 and RAID 1.

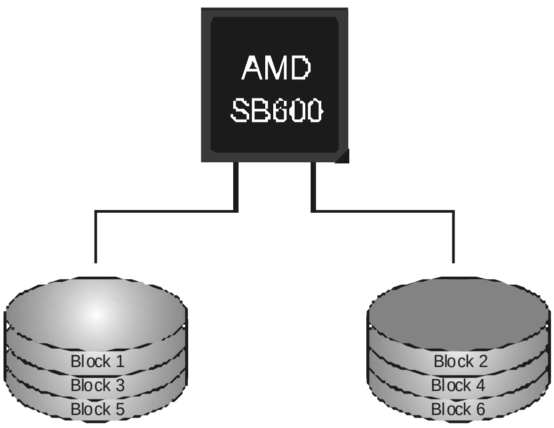
4.3 HOW RAID WORKS

RAID 0:

The controller "stripes" data across multiple drives in a RAID 0 array system. It breaks up a large file into smaller blocks and performs disk reads and writes across multiple drives in parallel. The size of each block is determined by the stripe size parameter, which you set during the creation of the RAID set based on the system environment. This technique reduces overall disk access time and offers high bandwidth.

Features and Benefits

- ***Drives:*** Minimum 1, and maximum is up to 6 or 8. Depending on the platform.
- ***Uses:*** Intended for non-critical data requiring high data throughput, or any environment that does not require fault tolerance.
- ***Benefits:*** provides increased data throughput, especially for large files. No capacity loss penalty for parity.
- ***Drawbacks:*** Does not deliver any fault tolerance. If any drive in the array fails, all data is lost.
- ***Fault Tolerance:*** No.



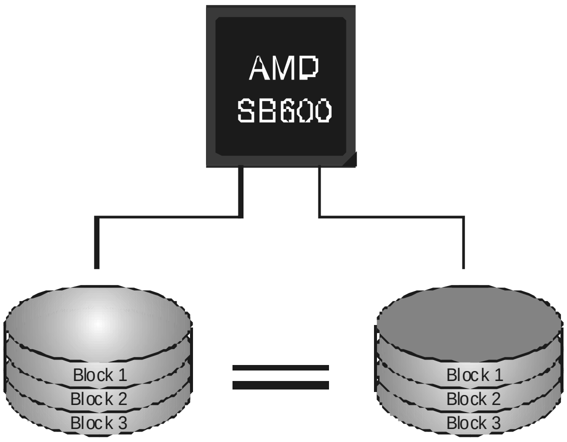
RAID 1:

Every read and write is actually carried out in parallel across 2 disk drives in a RAID 1 array system. The mirrored (backup) copy of the data can reside on the same disk or on a second redundant drive in the array. RAID 1 provides a hot-standby copy of data if the active volume or drive is corrupted or becomes unavailable because of a hardware failure.

RAID techniques can be applied for high-availability solutions, or as a form of automatic backup that eliminates tedious manual backups to more expensive and less reliable media.

Features and Benefits

- ***Drives:*** Minimum 2, and maximum is 2.
- ***Uses:*** RAID 1 is ideal for small databases or any other application that requires fault tolerance and minimal capacity.
- ***Benefits:*** Provides 100% data redundancy. Should one drive fail, the controller switches to the other drive.
- ***Drawbacks:*** Requires 2 drives for the storage space of one drive. Performance is impaired during drive rebuilds.
- ***Fault Tolerance:*** Yes.

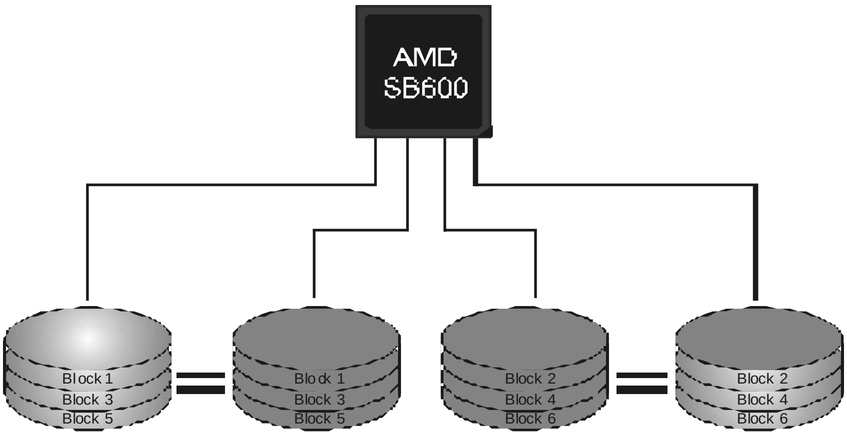


RAID 1+0:

RAID 1 drives can be stripped using RAID 0 techniques. Resulting in a RAID 1+0 solution for improved resiliency, performance and rebuild performance.

Features and Benefits

- ***Drives:*** Minimum 4, and maximum is 6 or 8, depending on the platform.
- ***Benefits:*** Optimizes for both fault tolerance and performance, allowing for automatic redundancy. May be simultaneously used with other RAID levels in an array, and allows for spare disks.
- ***Drawbacks:*** Requires twice the available disk space for data redundancy, the same as RAID level 1.
- ***Fault Tolerance:*** Yes.



CHAPTER 5: USEFUL HELP

5.1 DRIVER INSTALLATION NOTE

After you installed your operating system, please insert the Fully Setup Driver CD into your optical drive and install the driver for better system performance.

You will see the following window after you insert the CD



The setup guide will auto detect your motherboard and operating system.

> **Note:**
> If this window didn't show up after you insert the Driver CD, please use file browser to locate and execute the file ***SETUP.EXE*** under your optical drive.

A. Driver Installation

To install the driver, please click on the Driver icon. The setup guide will list the compatible driver for your motherboard and operating system. Click on each device driver to launch the installation program.

B. Software Installation

To install the software, please click on the Software icon. The setup guide will list the software available for your system, click on each software title to launch the installation program.

C. Manual

Aside from the paperback manual, we also provide manual in the Driver CD. Click on the Manual icon to browse for available manual.

> **Note:**
> You will need Acrobat Reader to open the manual file. Please download the latest version of Acrobat Reader software from
> ***http://www.adobe.com/products/acrobat/readstep2.html***

5.2 AWARD BIOS BEEP CODE

Beep Sound	Meaning
One long beep followed by two short beeps	Video card not found or video card memory bad
High-low siren sound	CPU overheated System will shut down automatically
One Short beep when system boot-up	No error found during POST
Long beeps every other second	No DRAM detected or install

5.3 EXTRA INFORMATION

CPU Overheated

If the system shutdown automatically after power on system for seconds, that means the CPU protection function has been activated.

When the CPU is over heated, the motherboard will shutdown automatically to avoid a damage of the CPU, and the system may not power on again.

In this case, please double check:

1. The CPU cooler surface is placed evenly with the CPU surface.
2. CPU fan is rotated normally.
3. CPU fan speed is fulfilling with the CPU speed.

After confirmed, please follow steps below to relief the CPU protection function.

1. Remove the power cord from power supply for seconds.
2. Wait for seconds.
3. Plug in the power cord and boot up the system.

Or you can:

1. Clear the CMOS data.
   (See "Close CMOS Header: JCMOS1" section)
2. Wait for seconds.
3. Power on the system again.

5.4 TROUBLESHOOTING

Probable	Solution
1. No power to the system at all Power light don't illuminate, fan inside power supply does not turn on. 2. Indicator light on keyboard does not turn on.	1. Make sure power cable is securely plugged in. 2. Replace cable. 3. Contact technical support.
System inoperative. Keyboard lights are on, power indicator lights are lit, and hard drive is spinning.	Using even pressure on both ends of the DIMM, press down firmly until the module snaps into place.
System does not boot from hard disk drive, can be booted from optical drive.	1. Check cable running from disk to disk controller board. Make sure both ends are securely plugged in; check the drive type in the standard CMOS setup. 2. Backing up the hard drive is extremely important. All hard disks are capable of breaking down at any time.
System only boots from optical drive. Hard disk can be read and applications can be used but booting from hard disk is impossible.	1. Back up data and applications files. 2. Reformat the hard drive. Re-install applications and data using backup disks.
Screen message says "Invalid Configuration" or "CMOS Failure."	Review system's equipment. Make sure correct information is in setup.
Cannot boot system after installing second hard drive.	1. Set master/slave jumpers correctly. 2. Run SETUP program and select correct drive types. Call the drive manufacturers for compatibility with other drives.

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APPENDENCIES: SPEC IN OTHER LANGUAGE

GERMAN

Spezifikationen		
CPU	Sockel AM2+ / AM2 AMD Athlon 64 / Athlon 64 FX / Althlon 64 X2 / Sempron Prozessoren	Die AMD 64-Architektur unterstützt eine 32-Bit- und 64-Bit-Datenverarbeitung Unterstützt Hyper Transport und Cool'n'Quiet
FSB	Unterstützt HyperTransport mit einer Bandbreite von bis zu 1GHz	
Chipsatz	AMD 690G AMD SB600	
Super E/A	ITE8716F Bietet die häufig verwendeten alten Super E/A-Funktionen.	Low Pin Count-Schnittstelle Umgebungskontrolle, Hardware-Überwachung "Smart Guardian"-Funktion von ITE
Arbeitsspeicher	DDR2 DIMM-Steckplätze x 2 Max. 4GB Arbeitsspeicher Jeder DIMM unterstützt 256/512MB/1GB/2GB DDR2.	Dual-Kanal DDR2 Speichermodul Unterstützt DDR2 533 / 667 / 800 Unterstützt DDR2 1066 (by AM2+ CPU) registrierte DIMMs. ECC DIMMs werden nicht unterstützt.
Grafik	Integrierter AMD 690G-Chipsatz	Max. 512MB gemeinsam benutzter Videospeicher
IDE	Integrierter IDE-Controller	Ultra DMA 33 / 66 / 100 / 133 Bus Master-Modus Unterstützt PIO-Modus 0~4,
SATA	Integrierter Serial ATA-Controller	Datentransferrate bis zu 3 Gb/s Konform mit der SATA-Spezifikation Version 2.0.
LAN	Realtek RTL 8101E	10 / 100 Mb/s Auto-Negotiation Halb-/Vollduplex-Funktion
HD Audio-Unterstützung	ALC662	5.1-Kanal-Audioausgabe Unterstützt High-Definition Audio
Steckplätze	PCI Express x16 Steckplatz x1 PCI Express x1 Steckplatz x1 PCI-Steckplatz x2	
Onboard-Anschluss	Diskettenlaufwerkanschluss x1 IDE-Anschluss x1 SATA-Anschluss x4	Jeder Anschluss unterstützt 2 Diskettenlaufwerke Jeder Anschluss unterstützt 2 IDE-Laufwerke Jeder Anschluss unterstützt 1 SATA-Laufwerk

Spezifikationen			
	Fronttafelanschluss	x1	Unterstützt die Fronttafelfunktionen
	Front-Audioanschluss	x1	Unterstützt die Fronttafel-Audioanschlussfunktion
	CD-IN-Anschluss	x1	Unterstützt die CD Audio-In-Funktion
	S/PDIF- Ausgangsanschluss	x1	Unterstützt die digitale Audioausgabefunktion
	CPU-Lüfter-Sockel	x1	CPU-Lüfterstromversorgungsanschluss (mit Smart Fan-Funktion)
	System-Lüfter-Sockel	x1	System-Lüfter-Stromversorgungsanschluss
	"CMOS löschen"-Sockel	x1	
	USB-Anschluss	x3	Jeder Anschluss unterstützt 2 Fronttafel-USB-Anschlüsse
	Stromanschluss (24-polig)	x1	
	Stromanschluss (4-polig)	x1	
	Druckeranschluss Anschluss	x1	Jeder Anschluss unterstützt 1 Druckeranschluss
	Serieller Anschluss	x1	
Rückseiten-E/A	PS/2-Tastatur	x1	
	PS/2-Maus	x1	
	VGA-Anschluss	x1	
	LAN-Anschluss	x1	
	USB-Anschluss	x4	
	Audioanschluss	x3	
	DVI-Anschluss	x1	
Platinengröße	200 mm (B) X 244 mm (L)		
Sonderfunktionen	Unterstützt RAID 0 / 1 / 1+0		
OS-Unterstützung	Windows XP / VISTA		Biostar behält sich das Recht vor, ohne Ankündigung die Unterstützung für ein Betriebssystem hinzuzufügen oder zu entfernen.

FRANCE

SPEC		
UC	Socket AM2+ / AM2 Processeurs AMD Athlon 64 / Athlon 64 FX / Althlon 64 X2 / Sempron	L'architecture AMD 64 permet le calcul 32 et 64 bits Prend en charge Hyper Transport et Cool'n'Quiet
Bus frontal	Prend en charge Hyper Transport jusqu'à une bande passante de 1GHz	
Chipset	AMD 690G AMD SB600	
Super E/S	ITE 8716F Fournit la fonctionnalité de Super E/S patrimoniales la plus utilisée.	Interface à faible compte de broches Initiatives de contrôle environnementales, Moniteur de matériel Fonction "Gardien intelligent" de l'ITE
Mémoire principale	Fentes DDR2 DIMM x 2 Capacité mémoire maximale de 4 Go Chaque DIMM prend en charge des DDR2 de 256/512 Mo et 1Go/2Go	Module de mémoire DDR2 à mode à double voie Prend en charge la DDR2 533 / 667 / 800 Prend en charge la DDR2 1066 (by AM2+ CPU) Les DIMM à registres et DIMM avec code correcteurs d'erreurs ne sont pas prises en charge
Graphiques	Integré dans la chipset AMD 690G	Mémoire vidéo partagée maximale de 512 Mo
IDE	Contrôleur IDE intégré	Mode principale de Bus Ultra DMA 33 / 66 / 100 / 133 Prend en charge le mode PIO 0~4,
SATA	Contrôleur Serial ATA intégré	Taux de transfert jusqu'à 3 Go/s. Conforme à la spécification SATA Version 2.0
LAN	Realtek RTL 8101E	10 / 100 Mb/s négociation automatique Half / Full duplex capability
Prise en charge audio HD	ALC662	Sortie audio à 5.1 voies Prise en charge de l'audio haute définition
Fentes	Fente PCI Express x16 x1 Fente PCI Express x1 x1 Fente PCI x2	
Connecteur embarqué	Connecteur de disquette x1	Chaque connector prend en charge 2 lecteurs de disquettes
	Connecteur IDE x1	Chaque connecteur prend en charge 2 périphériques IDE
	Connecteur SATA x4	Chaque connecteur prend en charge 1 périphérique SATA

SPEC		
	Connecteur du panneau avant x1	Prend en charge les équipements du panneau avant
	Connecteur Audio du panneau avant x1	Prend en charge la fonction audio du panneau avant
	Connecteur d'entrée CD x1	Prend en charge la fonction d'entrée audio de CD
	Connecteur de sortie S/PDIF x1	Prend en charge la fonction de sortie audio numérique
	Embase de ventilateur UC x1	Alimentation électrique du ventilateur UC (avec fonction de ventilateur intelligent)
	Embase de ventilateur système x1	Alimentation électrique du ventilateur système
	Embase d'effacement CMOS x1	
	Connecteur USB x3	Chaque connecteur prend en charge 2 ports USB de panneau avant
	Connecteur d'alimentation (24 broches) x1	
	Connecteur d'alimentation (4 broches) x1	
	Connecteur de Port d'imprimante x1	Chaque connector prend en charge 1 Port d'imprimante
	Connecteur de Port série x1	
E/S du panneau arrière	Clavier PS/2 x1 Souris PS/2 x1 Port VGA x1 Port LAN x1 Port USB x4 Fiche audio x3 Port DVI x1	
Dimensions de la carte	200 mm (l) X 244 mm (H)	
Fonctionnalités spéciales	Prise en charge RAID 0 / 1 / 1+0	
Support SE	Windows XP / VISTA	Biostar se réserve le droit d'ajouter ou de supprimer le support de SE avec ou sans préavis.

ITALIAN

SPECIFICA		
CPU	Socket AM2+ / AM2 Processori AMD Athlon 64 / Athlon 64 FX / Althlon 64 X2 / Sempron	L'architettura AMD 64 abilita la computazione 32 e 64 bit Supporto di Hyper Transport e Cool'n'Quiet
FSB	Supporto di HyperTransport fino a 1GHz di larghezza di banda	
Chipset	AMD 690G AMD SB600	
Super I/O	ITE 8716F Fornisce le funzionalità legacy Super I/O usate più comunemente.	Interfaccia LPC (Low Pin Count) Funzioni di controllo dell'ambiente: Monitoraggio hardware Funzione "Smart Guardian" di ITE
Memoria principale	Alloggi DIMM DDR2 x 2 Capacità massima della memoria 4GB Ciascun DIMM supporta DDR2 256/512MB e 1GB/2GB	Modulo di memoria DDR2 a canale doppio Supporto di DDR2 533 / 667 / 800 Supporto di DDR2 1066 (by AM2+ CPU) DIMM registrati e DIMM ECC non sono supportati
Grafica	Integrata nel Chipset AMD 690G	La memoria video condivisa massima è di 512 MB
IDE	Controller IDE integrato	Modalità Bus Master Ultra DMA 33 / 66 / 100 / 133 Supporto modalità PIO Mode 0-4
SATA	Controller Serial ATA integrato	Velocità di trasferimento dei dati fino a 3 Gb/s. Compatibile specifiche SATA Versione 2.0.
LAN	Realtek RTL 8101E	Negoziazione automatica 10 / 100 Mb/s Capacità Half / Full Duplex
Supporto audio HD	ALC662	Uscita audio 5.1 canali Supporto audio High-Definition (HD)
Alloggi	Alloggio PCI Express x16 x1 Alloggio PCI Express x1 x1 Alloggio PCI x2	
Connettori su scheda	Connettore floppy x1 Connettore IDE x1 Connettore SATA x4 Connettore pannello frontale x1	Ciascun connettore supporta 2 unità Floppy Ciascun connettore supporta 2 unità IDE Ciascun connettore supporta 1 unità SATA Supporta i servizi del pannello frontale

SPECIFICA			
	Connettore audio frontale	x1	Supporta la funzione audio pannello frontale
	Connettore CD-in	x1	Supporta la funzione input audio CD
	Connettore output SPDIF	x1	Supporta la funzione d'output audio digitale
	Collettore ventolina CPU	x1	Alimentazione ventolina CPU (con funzione Smart Fan)
	Collettore ventolina sistema	x1	Alimentazione ventolina di sistema
	Collettore cancellazione CMOS	x1	
	Connettore USB	x3	Ciascun connettore supporta 2 porte USB pannello frontale
	Connettore alimentazione (24 pin)	x1	
	Connettore alimentazione (4 pin)	x1	
	Connettore Porta stampante	x1	Ciascun connettore supporta 1 Porta stampante
	Connettore Porta seriale	x1	
I/O pannello posteriore	Tastiera PS/2	x1	
	Mouse PS/2	x1	
	Porta VGA	x1	
	Porta LAN	x1	
	Porta USB	x4	
	Connettore audio	x3	
	Porta DVI	x1	
Dimensioni scheda	200 mm (larghezza) x 244 mm (altezza)		
Caratteristiche speciali	Supporto RAID 0 / 1 / 1+0		
Sistemi operativi supportati	Windows XP / VISTA		Biostar si riserva il diritto di aggiungere o rimuovere il supporto di qualsiasi sistema operativo senza preavviso.

SPANISH

Especificación		
CPU	Conector AM2+ / AM2 Procesadores AMD Athlon 64 / Athlon 64 FX / Athlon 64 X2 / Sempron	La arquitectura AMD 64 permite el procesado de 32 y 64 bits Soporta las tecnologías Hyper Transport y Cool'n'Quiet
FSB	Admite HyperTransport con un ancho de banda de hasta 1GHz	
Conjunto de chips	AMD 690G AMD SB600	
Súper E/S	ITE 8716F Le ofrece las funcionalidades heredadas de uso más común Súper E/S.	Interfaz de cuenta Low Pin Iniciativas de control de entorno, Monitor hardware Función "Guardia inteligente" de ITE
Memoria principal	Ranuras DIMM DDR2 x 2 Capacidad máxima de memoria de 4GB Cada DIMM admite DDR de 256/512MB y 1GB/2GB	Módulo de memoria DDR2 de canal Doble Admite DDR2 de 533 / 667 / 800 Admite DDR2 de 1066 (by AM2+ CPU) No admite DIMM registrados o DIMM compatibles con ECC
Gráficos	Integrados en el conjunto de chips AMD 690G	Memoria máxima de vídeo compartida de 512 MB
IDE	Controlador IDE integrado	Modo bus maestro Ultra DMA 33 / 66 / 100 / 133 Soporte los Modos PIO 0~4,
SATA	Controlador ATA Serie Integrado	Tasas de transferencia de hasta 3 Gb/s. Compatible con la versión SATA 2.0.
Red Local	Realtek RTL 8101E	Negociación de 10 / 100 Mb/s Funciones Half / Full dúplex
Soporte de sonido HD	ALC662	Salida de sonido de 5.1 canales Soporte de sonido Alta Definición
Ranuras	Ranura PCI Express x16 X1 Ranura PCI Express x1 X1 Ranura PCI X2	
Conectores en placa	Conector disco flexible X1 Conector IDE X1 Conector SATA X4 Conector de panel frontal X1	Cada conector soporta 2 unidades de disco flexible Cada conector soporta 2 dispositivos IDE Cada conector soporta 1 dispositivos SATA Soporta instalaciones en el panel frontal

Especificación			
	Conector de sonido frontal	X1	Soporta funciones de sonido en el panel frontal
	Conector de entrada de CD	X1	Soporta función de entrada de sonido de CD
	Conector de salida S/PDIF	X1	Soporta función de salida de sonido digital
	Cabecera de ventilador de CPU	X1	Fuente de alimentación de ventilador de CPU (con función Smart Fan)
	Cabecera de ventilador de sistema	X1	Fuente de alimentación de ventilador de sistema
	Cabecera de borrado de CMOS	X1	
	Conector USB	X3	Cada conector soporta 2 puertos USB frontales
	Conector de alimentación (24 patillas)	X1	
	Conector de alimentación (4 patillas)	X1	
	Conector Puerto de impresora	X1	Cada conector soporta 1 Puerto de impresora
	Conector Puerto serie	X1	
Panel trasero de E/S	Teclado PS/2	X1	
	Ratón PS/2	X1	
	Puerto VGA	X1	
	Puerto de red local	X1	
	Puerto USB	X4	
	Conector de sonido	X3	
	Puerto DVI	X1	
Tamaño de la placa	200 mm. (A) X 244 Mm. (H)		
Funciones especiales	Admite RAID 0 / 1 / 1+0		
Soporte de sistema operativo	Windows XP / VISTA		Biostar se reserva el derecho de añadir o retirar el soporte de cualquier SO con o sin aviso previo.

PORTUGUESE

ESPECIFICAÇÕES		
CPU	Socket AM2+ / AM2 Processadores AMD Athlon 64 / Athlon 64 FX / Althlon 64 X2 / Sempron	A arquitectura AMD 64 permite uma computação de 32 e 64 bits Suporta as tecnologias Hyper Transport e Cool'n'Quiet
FSB	Suporta a tecnologia HyperTransport com uma largura de banda até 1GHz	
Chipset	AMD 690G AMD SB600	
Especificação Super I/O	ITE 8716F Proporciona as funcionalidades mais utilizadas em termos da especificação Super I/O.	Interface LPC (Low Pin Count). Iniciativas para controlo do ambiente Monitorização do hardware Função "Smart Guardian" da ITE
Memória principal	Ranhuras DIMM DDR2 x 2 Capacidade máxima de memória: 4 GB Cada módulo DIMM suporta uma memória DDR2 de 256/512 MB & 1 GB/ 2 GB	Módulo de memória DDR2 de canal duplo Suporta módulos DDR2 533 / 667 / 800 Suporta módulos DDR2 1066 (by AM2+ CPU) Os módulos DIMM registados e os DIMM ECC não são suportados
Placa gráfica	Integrada no chipset AMD 690G	Memória de vídeo máxima partilhada: 512 MB
IDE	Controlador IDE integrado	Modo Bus master Ultra DMA 33 / 66 / 100 / 133 Suporta o modo PIO 0~4,
SATA	Controlador Serial ATA integrado	Velocidades de transmissão de dados até 3 Gb/s. Compatibilidade com a especificação SATA versão 2.0.
LAN	Realtek RTL 8101E	Auto negociação de 10 / 100 Mb/s Capacidade semi/full-duplex
Suporte para áudio de alta definição	ALC662	Saída de áudio de 5.1 canais Suporta a especificação High-Definition Audio
Ranhuras	Ranhura PCI Express x16 x1 Ranhura PCI Express x1 x1 Ranhura PCI x2	
Conectores na placa	Conector da unidade de disquetes x1 Conector IDE x1 Conector SATA x4	Cada conector suporta 2 unidades de disquetes Cada conector suporta 2 dispositivos IDE Cada conector suporta 1 dispositivo SATA

ESPECIFICAÇÕES			
	Conector do painel frontal	x1	Para suporte de várias funções no painel frontal
	Conector de áudio frontal	x1	Suporta a função de áudio no painel frontal
	Conector para entrada de CDs	x1	Suporta a entrada de áudio a partir de CDs
	Conector de saída S/PDIF	x1	Suporta a saída de áudio digital
	Conector da ventoinha da CPU	x1	Alimentação da ventoinha da CPU (com a função Smart Fan)
	Conector da ventoinha do sistema	x1	Alimentação da ventoinha do sistema
	Conector para limpeza do CMOS	x1	
	Conector USB	x3	Cada conector suporta 2 portas USB no painel frontal
	Conector de alimentação (24 pinos)	x1	
	Conector de alimentação (4 pinos)	x1	
	Conector da para impressora	x1	Cada conector suporta 1 Porta para impressora
	Conector da Porta série	x1	
Entradas/Saídas no painel traseiro	Teclado PS/2	x1	
	Rato PS/2	x1	
	Porta VGA	x1	
	Porta LAN	x1	
	Porta USB	x4	
	Tomada de áudio	x3	
	Porta DVI	x1	
Tamanho da placa	200 mm (L) X 244 mm (A)		
Características especiais	Suporta as funções RAID 0 / 1 / 1+0		
Sistemas operativos suportados	Windows XP / VISTA		A Biostar reserva-se o direito de adicionar ou remover suporte para qualquer sistema operativo com ou sem aviso prévio.

POLISH

SPEC		
Procesor	Socket AM2+ / AM2 AMD Athlon 64 / Athlon 64 FX / Althlon 64 X2 / Sempron Procesory	Architektura AMD 64 umożliwia przetwarzanie 32 i 64 bitowe Obsługa Hyper Transport oraz Cool'n'Quiet
FSB	Obsługa HyperTransport o szerokości pasma do 1GHz	
Chipset	AMD 690G AMD SB600	
Pamięć główna	Gniazda DDR2 DIMM x 2 Maks. wielkość pamięci 4GB Każde gniazdo DIMM obsługuje moduły 256/512MB oraz 1GB/2GB DDR2	Moduł pamięci DDR2 z trybem podwójnego kanału Obsługa DDR2 533 / 667 / 800 Obsługa DDR2 1066 (by AM2+ CPU) Brak obsługi Registered DIMM oraz ECC DIMM
Super I/O	ITE 8716F Zapewnia najbardziej powszechne funkcje Super I/O.	Interfejs Low Pin Count Funkcje kontroli warunków pracy, Monitor H/W Funkcja ITE "Smart Guardian"
Grafika	Zintegrowana w chipsecie AMD 690G	Maks. wielkość współdzielonej pamięci video wynosi 512 MB
IDE	Zintegrowany kontroler IDE	Ultra DMA 33 / 66 / 100 / 133 Tryb Bus Master obsługa PIO tryb 0~4,
SATA	Zintegrowany kontroler Serial ATA	Transfer danych do 3 Gb/s. Zgodność ze specyfikacją SATA w wersji 2.0.
LAN	Realtek RTL 8101E	10 / 100 Mb/s z automatyczną negocjacją szybkości Działanie w trybie połowicznego / pełnego dupleksu
Obsługa audio HD	ALC662	5.1 kanałowe wyjście audio Obsługa High-Definition Audio
Gniazda	Gniazdo PCI Express x16 x1 Gniazdo PCI Express x1 x1 Gniazdo PCI x2	
Złącza wbudowane	Złącze napędu dyskietek x1 Złącze IDE x1 Złącze SATA x4 Złącze panela przedniego x1	Każde złącze obsługuje 2 napędy dyskietek Każde złącze obsługuje 2 urządzenia IDE Każde złącze obsługuje 1 urządzenie SATA Obsługa elementów panela przedniego

SPEC		
	Przednie złącze audio x1	Obsługa funkcji audio na panelu przednim
	Złącze wejścia CD x1	Obsługa funkcji wejścia audio CD
	Złącze wyjścia S/PDIF x1	Obsługa funkcji cyfrowego wyjścia audio
	Złącze główkowe wentylatora procesora x1	Zasilanie wentylatora procesora (z funkcją Smart Fan)
	Złącze główkowe wentylatora systemowego x1	Zasilanie wentylatora systemowego
	Złącze główkowe kasowania CMOS x1	
	Złącze USB x3	Każde złącze obsługuje 2 porty USB na panelu przednim
	Złącze zasilania (24 pinowe) x1	
	Złącze zasilania (4 pinowe) x1	
	Złącze Port drukarki x1	Każde złącze obsługuje 1 Port drukarki
	Złącze Port szeregowy x1	
Back Panel I/O	Klawiatura PS/2 x1 Mysz PS/2 x1 Port VGA x1 Port LAN x1 Port USB x4 Gniazdo audio x3 Port DVI x1	
Wymiary płyty	200 mm (S) X 244 mm (W)	
Funkcje specjalne	Obsługa RAID 0 / 1 / 1+0	
Obsluga systemu operacyjnego	Windows XP / VISTA	Biostar zastrzega sobie prawo dodawania lub odwoływania obsługi dowolnego systemu operacyjnego bez powiadomienia.

RUSSIAN

СПЕЦ		
CPU (центральный процессор)	Гнездо AM2+ / AM2 Процессоры AMD Athlon 64 / Athlon 64 FX / Althlon 64X2 / Sempron	Архитектура AMD 64 разрешать обработка данных на 32 и 64 бит Поддержка Hyper Transport и Cool'n'Quiet
FSB	Поддержка HyperTransport с пропускной способностью до 1GHz	
Набор микросхем	AMD 690G AMD SB600	
Основная память	Слоты DDR2 DIMM x 2 Максимальная ёмкость памяти 4 ГБ Каждый модуль DIMM поддерживает 256/512МБ & 1ГБ/2ГБ DDR2	Модуль памяти с двухканальным режимом DDR2 Поддержка DDR2 533 / 667 / 800 Поддержка DDR2 1066 (by AM2+ CPU) Не поддерживает зарегистрированные модули DIMM and ECC DIMM
Super I/O	ITE 8716F Обеспечивает наиболее используемые действующие функциональные возможности Super I/O.	Интерфейс с низким количеством выводов Инициативы по охране окружающей среды, Аппаратный монитор Функция ITE "Smart Guardian" (Интеллектуальная защита)
Графика	Встроенная в набор микросхем AMD 690G	Максимальная совместно используемая видео память составляет 512МБ
IDE	Встроенное устройство управления встроенными интерфейсами устройств	Режим "хозяина" шины Ultra DMA 33 / 66 / 100 / 133 Поддержка режима PIO 0~4,
SATA	Встроенное последовательное устройство управления ATA	скорость передачи данных до 3 гигабит/с. Соответствие спецификации SATA версия 2.0.
Локальная сеть	Realtek RTL 8101E	Автоматическое согласование 10 / 100 Мб/с Частичная / полная дуплексная способность
Звуковая поддержка жесткого диска	ALC662	Звуковая поддержка High-Definition 5.1канальный звуковой выход
Слоты	Слот PCI Express x16 x1 Слот PCI Express x1 x1 Слот PCI x2	
Встроенный разъём	Разъём НГМД x1	Каждый разъём поддерживает 2 накопителя на гибких магнитных дисках
	Разъём IDE x1	Каждый разъём поддерживает 2 встроенных интерфейса накопителей
	Разъём SATA x4	Каждый разъём поддерживает 1 устройство SATA
	Разъём на лицевой панели x1	Поддержка устройств на лицевой панели
	Входной звуковой разъём x1	Поддержка звуковых функций на лицевой панели

СПЕЦ		
	Разъём ввода для CD x1	Поддержка функции ввода для CD
	Разъём вывода для S/PDIF x1	Поддержка вывода цифровой звуковой функции
	Контактирующее приспособление вентилятора центрального процессора x1	Источник питания для вентилятора центрального процессора (с функцией интеллектуального вентилятора)
	Контактирующее приспособление вентилятора системы x1	Источник питания для вентилятора системы
	Открытое контактирующее приспособление CMOS x1	
	USB-разъём x3	Каждый разъём поддерживает 2 USB-порта на лицевой панели
	Разъем питания (24 вывод) x1	
	Разъем питания (4 вывод) x1	
	Разъём Порт подключения принтера x1	Каждый разъём поддерживает 1 Порт подключения принтера
	Разъём Последовательный порт x1	
Задняя панель средств ввода-вывода	Клавиатура PS/2 x1 Мышь PS/2 x1 Порт VGA x1 Порт LAN x1 USB-порт x4 Гнездо для подключения наушников x3 Порт DVI x1	
Размер панели	200 мм (Ш) X 244 мм (В)	
Специальные технические характеристики	Поддержка RAID 0/ 1 / 1+0	
Поддержка OS	Windows XP / VISTA	Biostar сохраняет за собой право добавлять или удалять средства обеспечения для OS с или без предварительного уведомления.

ARABIC

المواصفات		
وحدة المعالجة المركزية	AM2+ / AM2 مقبس معالجات AMD Athlon 64 / Athlon 64 FX / Sempron / Althlon 64 X2	إجراء العمليات الحسابية بسرعة 32 و 64 بت AMD 64 تمكن تقنية تدعم تقنية Hyper Transport و Cool'n'Quiet
النقل الأمامي الجانبي	ميجابايت/ثانية 1G بتردد يصل إلى HyperTransport تدعم تقنية	
مجموعة الشرائح	AMD 690G AMD SB600	
Super I/O	ITE 8716F الأكثر استخداماً. Super I/O توفر وظيفة	تدعم تقنية Low Pin Count Interface وسائل لتحكم في البيئة: مراقب لمعرفة حالة الأجهزة ITE من "Smart Guardian" وظيفة
الذاكرة الرئيسية	فتحة DDR2 DIMM عدد 2 سعة ذاكرة قصوى 4 جيجا بايت ميجا 256/512 سعة DDR2 تدعم ذاكرة من نوع DIMM تدعم كل فتحة بايت و 1/ و 2 جيجابايت	مزدوجة القناة DDR2 وحدة ذاكرة سعات 533 / 667 / 800 ميجا بايت DDR2 تدعم الذاكرة من نوع 1066(By AM2+ CPU) سعات DDR2 تدعم الذاكرة من نوع ميجا بايت ECC وتلك التي لا تتوافق مع DIMM لا تدعم رقائق الذاكرة
بطاقة الرسومات	AMD 690G مدمجة في رقائق	ميجابايت 512 أقصى سعة لذاكرة الفيديو المشتركة
منفذ IDE	متكامل IDE متحكم	وضع رئيسي Ultra DMA 33 / 66 / 100 / 133 نقل بتقنية دعم وضع PIO Mode 0~4
SATA	متكامل Serial ATA متحكم	جيجابت/ثانية.3 نقل البيانات بسرعات تصل إلى 2.0. الإصدار SATA مطابقة لمواصفات
شبكة داخلية	Realtek RTL 8101E	تفاوض تلقائي 100/10 ميجا بايت /ثانية إمكانية النقل المزدوج الكامل/النصفي
دعم الصوت عالي التعريف	ALC662	قنوات لخرج الصوت 5.1 تدعم تقنية الصوت عالي التعريف من
الفتحات	فتحة PCI Express x16 عدد 1 فتحة PCI Express x1 عدد 1 فتحة PCI عدد 2	
المنافذ على سطح اللوحة	منفذ محرك أقراص مرنة عدد 1 منفذ IDE عدد 1 منفذ SATA عدد 4 منفذ اللوحة الأمامية عدد 1	يدعم محركين للأقراص المرنة IDE يدعم كل منفذ اثنين من أجهزة SATA يدعم كل منفذ واحد من أجهزة يدعم تجهيزات اللوحة الأمامية

المواصفات			
	منقذ الصوت الأملي	عدد 1	يدعم وظيفة الصوت باللوحة الأملمية
	منقذ CD-IN	عدد 1	يدعم وظيفة دخل صوت القوص لمدمج
	منقذ خرج S/PDIF	عدد 1	يدعم وظيفة خرج لصوت الرقمي
	وصلة مروحة وحدة المعالجة المركزية	عدد 1	لتوصيل الطاقة لمروحة وحدة المعالجة مع وظيفة Smart Fan
	وصلة مروحة النظام	عدد 1	لتوصيل الطاقة لمروحة النظام
	وصلة مسح CMOS	عدد 1	
	منقذ USB	عدد 3	يدعم كل منفذ قتحتي USB باللوحة الأملمية
	منقذ توصيل الطاقة (24 دبوس)	عدد 1	
	منقذ توصيل الطاقة (4 دبوس)	عدد 1	
	منقذ طابعة	عدد 1	
	منقذ تسلسلي	عدد 1	
منافذ دخل/خرج اللوحة الخلفية	لوحة مفاتيح PS/2	عدد 1	
	ماوس PS/2	عدد 1	
	منقذ VGA	عدد 1	
	منقذ شبكة اتصال محلية	عدد 1	
	منافذ USB	عدد 4	
	مقبس صوت	عدد 3	
	منافذ DVI	عدد 1	
حجم اللوحة	200 مم (عرض) X 244 مم (ارتفاع)		
مزايا خاصة	تدعم تقنية RAID 0 / 1 / 1+0		
دعم أنظمة التشغيل	Windows XP / VISTA		تحتفظ Biostar بحقها في إضافة أو إزالة الدعم لأي نظام تشغيل بإخطار أو بدون إخطار.

JAPANESE

仕様		
CPU	Socket AM2+ / AM2 AMD Athlon 64 / Athlon 64 FX / Althlon 64 X2 / Sempron プロセッサ	AMD 64アーキテクチャでは、32ビットと64ビット計算が可能です ハイパートランスポートとクールアンドクワイアットをサポートします
FSB	1GHzのバンド幅までハイパートランスポートをサポートします	
チップセット	AMD 690G AMD SB600	
メインメモリ	DDR2 DIMMスロット x 2 最大メモリ容量4GB 各DIMMは 256/512MB & 1GB/2GB DDR2をサポート	デュアル チャンネルモードDDR2メモリモジュール DDR2 533 / 667 / 800をサポート DDR2 1066をサポート (by AM2+ CPU) 登録済みDIMMとECC DIMMはサポートされません
Super I/O	ITE 8716F もっとも一般に使用されるレガシーSuper I/O機能を採用しています。	低ピンカウントインターフェイス 環境コントロールイニシアチブ、 H/Wモニター ITEの「スマートガーディアン」機能
グラフィックス	AMD 690Gチップセットに統合	最大の共有ビデオメモリは512MBです
IDE	統合IDEコントローラ	Ultra DMA 33 / 66 / 100 / 133バスマスタモード PIO Mode 0~4のサポート、
SATA	統合シリアルATAコントローラ	最高3Gb/秒のデータ転送速度 SATAバージョン2.0仕様に準拠。
LAN	Realtek RTL 8101E	10 / 100 Mb/秒のオートネゴシエーション 半/全二重機能
HDオーディオのサポート	ALC662	5.1チャンネルオーディオアウト ハイデフィニションオーディオのサポート
スロット	PCI Express x16スロット x1 PCI Express x1スロット x1 PCIスロット x2	
オンボードコネクタ	フロッピーコネクタ x1 IDEコネクタ x1	各コネクタは2つのフロッピードライブをサポートします 各コネクタは2つのIDEデバイスをサポートします

仕様			
	SATAコネクタ	x4	各コネクタは1つのSATAデバイスをサポートします
	フロントパネルコネクタ	x1	フロントパネル機能をサポートします
	フロントオーディオコネクタ	x1	フロントパネルオーディオ機能をサポートします
	CDインコネクタ	x1	CDオーディオイン機能をサポートします
	S/PDIFアウトコネクタ	x1	デジタルオーディオアウト機能をサポートします
	CPUファンヘッダ	x1	CPUファン電源装置(スマートファン機能を搭載)
	システムファンヘッダ	x1	システムファン電源装置
	CMOSクリアヘッダ	x1	
	USBコネクタ	x3	各コネクタは2つのフロントパネルUSBポートをサポートします
	電源コネクタ(24ピン)	x1	
	電源コネクタ(4ピン)	x1	
	プリンタポートコネクタ	x1	各コネクタは1つのプリンタポートをサポートします
	シリアルポートコネクタ	x1	
背面パネル I/O	PS/2キーボード	x1	
	PS/2マウス	x1	
	VGAポート	x1	
	LANポート	x1	
	USBポート	x4	
	オーディオジャック	x3	
	DVIポート	x1	
ボードサイズ	200 mm (幅) X 244 mm (高さ)		
特殊機能	RAID 0 / 1 / 1+0 のサポート		
OSサポート	Windows XP / VISTA		Biostarは事前のサポートなしにOSサポートを追加または削除する権利を留保します。

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